

LIST OF CURRENT CLAIMS

1. (Currently Amended) A security paper for producing value documents, exemplified by ~~such as~~ bank notes, passports ~~or~~[[,]] identification documents ~~or the like,~~ comprising ~~having~~ a flat substrate (12) provided at least partly with a dirt-repellent protective layer (14) for extending the life time and fitness for circulation, ~~characterized in that wherein~~ the protective layer (14) comprises at least two lacquer layers (16, 18), a first lower one of said lacquer layers ~~layer~~ (16) being formed by a physically drying lacquer layer applied to the substrate (12) which makes contact with the substrate (12) therebelow and closes its pores, and a second upper one of said lacquer layers ~~layer~~ (18) protecting the substrate (12) from physical and chemical influences.
2. (Currently Amended) The [[A]] security paper according to claim 1, wherein ~~characterized in that~~ the substrate is formed by an unprinted (12) or printed (12, 20) cotton paper.
3. (Currently Amended) The [[A]] security paper according to claim 1 ~~or 2~~, ~~characterized in that wherein~~ the lower lacquer layer (16) forms a smooth and contiguous layer on the substrate.
4. (Currently Amended) The [[A]] security paper according to claim 1, wherein ~~at least one of claims 1 to 3~~, ~~characterized in that~~ the first lower lacquer layer is elastic.
5. (Currently Amended) The [[A]] security paper according to claim 1, wherein ~~at least one of claims 1 to 4~~, ~~characterized in that~~ the first lower lacquer layer (16) is formed by a water-based dispersion lacquer layer.
6. (Currently Amended) The [[A]] security paper according to claim 1, wherein ~~at least one of claims 1 to 5~~, ~~characterized in that~~ the first lower lacquer layer comprises a polyurethane.

7. (Currently Amended) The [[A]] security paper according to claim 1, wherein ~~at least one of claims 1 to 6, characterized in that~~ the first lower lacquer layer is based on a water-based dispersion of aliphatic polyester polyurethanes or styrene-acrylic polyurethanes.

8. (Currently Amended) The [[A]] security paper according to claim 1, wherein ~~at least one of claims 1 to 7, characterized in that~~ the second upper lacquer layer (18) is formed by a radiation-curing and/or physically drying lacquer layer.

9. (Currently Amended) The [[A]] security paper according to claim 8, wherein ~~characterized in that the~~ each lacquer layer is selected from the group consisting of ~~formed by~~ a UV-crosslinked lacquer layer, a water-based dispersion lacquer layer ~~or~~ and a hybrid lacquer layer.

10. (Currently Amended) The [[A]] security paper according to claim 1, wherein ~~at least one of claims 1 to 9, characterized in that~~ the second upper lacquer layer comprises silicones and/or wax.

11. (Currently Amended) The [[A]] security paper according to claim 9, wherein ~~characterized in that~~ the UV-crosslinked lacquer layer is based on an acrylate system, the water-based dispersion lacquer layer on a styrene-acrylic system, and the hybrid lacquer layer on a system comprising aliphatic urethane acrylates and acrylates with photoinitiators.

12. (Currently Amended) The [[A]] security paper according to claim 8, wherein ~~characterized in that~~ the composition of the upper lacquer layer (18) is selected with respect to brittleness and surface tension so as to obtain a predetermined haptics of the security paper, in particular a predetermined smoothness, sound and/or flexural stiffness.

13. (Currently Amended) The ~~[[A]]~~ security paper according to claim 1, wherein ~~at least one of claims 1 to 12,~~ characterized in that the second upper lacquer layer (18) is disposed directly on the first lower lacquer layer (16).

14. (Currently Amended) The ~~[[A]]~~ security paper according to claim 1, wherein ~~at least one of claims 1 to 13,~~ characterized in that a further lacquer layer comprising water-based dispersion lacquer is disposed between the second upper (18) and first lower (16) lacquer layers.

15. (Currently Amended) The ~~[[A]]~~ security paper according to claim 1, wherein ~~at least one of claims 1 to 14,~~ characterized in that the lacquer layers (16, 18) of the protective layer are conditioned with each other in their adhesion properties so as to form a highly resistant bond.

16. (Currently Amended) The ~~[[A]]~~ security paper according to claim 1, wherein ~~at least one of claims 1 to 15,~~ characterized in that the first lower lacquer layer (16) has a low glass transition temperature to increase the adhesion and adhesion promotion.

17. (Currently Amended) The ~~[[A]]~~ security paper according to claim 1, wherein either or both ~~at least one of claims 1 to 16,~~ characterized in that the second upper (18) and/or first lower (16) lacquer layer is transparent and colorless.

18. (Currently Amended) The ~~[[A]]~~ security paper according to claim 1, wherein ~~at least one of claims 1 to 17,~~ characterized in that the second upper lacquer layer (18) has antibacterial fungus proofing.

19. (Currently Amended) The ~~[[A]]~~ security paper according to claim 1, wherein ~~at least one of claims 1 to 18,~~ characterized in that the first lower lacquer layer (16) is present on the substrate (12) in a coating weight of from 1 to 6 g/m², preferably 2 to 4 g/m².

20. (Currently Amended) The ~~[[A]]~~ security paper according to claim 1, wherein ~~at least one of claims 1 to 19, characterized in that~~ the first upper lacquer layer (18) is present on the substrate (12) in a coating weight of from 0.5 to 3 g/m², preferably 1 to 2 g/m².

21. (Currently Amended) The ~~[[A]]~~ security paper according to claim 1, wherein ~~at least one of claims 1 to 20, characterized in that~~ the substrate (12, 20) is printed with characters or patterns (20), and the protective layer (14) is applied to the printed substrate (12, 20) and/or the first lower lacquer layer is printed to which the second upper lacquer layer is applied, and/or the second upper lacquer layer is printed.

22. (Currently Amended) The ~~[[A]]~~ security paper according to claim 1, wherein ~~at least one of claims 1 to 21, characterized in that~~ the protective layer (14) contains at least one gap.

23. (Currently Amended) The ~~[[A]]~~ security paper according to claim 21, wherein ~~characterized in that~~ the gap has a security element incorporated therein.

24. (Currently Amended) The ~~[[A]]~~ security paper according to claim 1, wherein ~~at least one of claims 1 to 21, characterized in that~~ the protective layer (14) is applied to the flat substrate (12) all over.

25. (Currently Amended) The ~~[[A]]~~ security paper according to claim 1, wherein ~~at least one of claims 1 to 24, characterized in that~~ the flat substrate (12) is provided with the dirt-repellent protective layer (14) on its two main faces.

26. (Currently Amended) A value document, exemplified by such as a bank note, passport~~[[,]]~~ or identification document ~~or the like, comprising~~ characterized in that the value document has a security paper according to claim 1 ~~at least one of claims 1 to 25.~~

27. (Currently Amended) A method for producing a security paper in particular for a value document, exemplified by ~~such as~~ a bank note, passport~~[[,]]~~ or identification document ~~or the like, comprising~~ characterized by the following steps:

- a) supplying a flat substrate;
- b) applying a dirt-repellent protective layer to the substrate, the protective layer being applied by
 - b₁) applying a physically drying lacquer layer to the substrate as ~~the~~ a first lower layer of the protective layer to make contact with the substrate therebelow and close its pores; and
 - b₂) applying a second ~~an~~ upper layer of the protective layer to protect the substrate from physical and chemical influences.

28. (Currently Amended) The ~~The~~ [[A]] method according to claim 27, wherein ~~characterized in that~~

- b₂) the second upper layer applied is either or both a radiation-curing and/or physically drying layer, and
- c) the second upper layer is crosslinked, cured and/or dried by irradiation with electromagnetic radiation.

29. (Currently Amended) The ~~The~~ [[A]] method according to claim 27 ~~or 28~~, wherein ~~characterized in that~~ the flat substrate supplied is a printed or unprinted cotton paper.

30. (Currently Amended) The ~~The~~ [[A]] method according to claim 27, wherein ~~at least one of claims 27 to 29, characterized in that~~ the first lower layer applied is an elastic material~~[[,]] in particular a water-based dispersion lacquer layer.~~

31. (Currently Amended) The ~~The~~ [[A]] method according to claim 27, wherein ~~at least one of claims 27 to 30, characterized in that~~ the first lower lacquer layer is applied in an amount of coating which closes the pores of the substrate and forms a smooth and cohesive surface on the substrate.

32. (Currently Amended) The ~~[[A]]~~ method according to claim 27, wherein at least one of claims 27 to 31, characterized in that the first lower lacquer layer is applied to the substrate in an amount of from 2.5 to 15 g/m², preferably 5 to 10 g/m² (wet weight).

33. (Currently Amended) The ~~[[A]]~~ method according to claim 27, wherein at least one of claims 27 to 32, characterized in that the first lower layer is dried prior to application of the second upper layer.

34. (Currently Amended) The ~~[[A]]~~ method according to claim 27, wherein at least one of claims 27 to 33, characterized in that the second upper lacquer layer applied is a UV-crosslinking lacquer layer, a water-based dispersion lacquer layer or a hybrid lacquer.

35. (Currently Amended) The ~~[[A]]~~ method according to claim 27, wherein at least one of claims 27 to 34, characterized in that the composition of the second upper lacquer layer is selected with respect to brittleness and surface tension so as to obtain a predetermined haptics of the security paper, in particular a predetermined smoothness, sound and/or flexural stiffness.

36. (Currently Amended) The ~~[[A]]~~ method according to claim 27, wherein at least one of claims 27 to 35, characterized in that a printed image is printed on the substrate prior to application of the protective layer.

37. (Currently Amended) The ~~[[A]]~~ method according to claim 27, wherein at least one of claims 27 to 36, characterized in that a printed image is printed on the first lower lacquer layer after application of the first lower lacquer layer, and/or a printed image is printed on the second upper lacquer layer after application of the second upper lacquer layer.

38. (Currently Amended) The ~~[[A]]~~ method according to claim 27, wherein one of claims 27 to 37, characterized in that the unlacquered or lacquered substrate is printed by the intaglio printing process.

39. (Currently Amended) The [[A]] method according to claim 27, wherein ~~at least one of claims 27 to 38, characterized in that~~ the first lower and/or second upper lacquer layer is applied by a flexographic printing process.

40. (Currently Amended) The [[A]] method according to claim 39, wherein ~~characterized in that~~ the lacquer layers applied by a flexographic printing process are applied in an amount of coating of altogether 3 to 12 g/m².

41. (Currently Amended) A method according to claim 27, wherein ~~at least one of claims 27 to 38, characterized in that~~ the first lower and/or second upper lacquer layer is applied by a screen printing process.

42. (Currently Amended) The [[A]] method according to claim 41, wherein ~~characterized in that~~ the lacquer layers applied by a screen printing process are applied in an amount of coating of altogether 5 to 15 g/m².

43. (Currently Amended) The [[A]] method according to claim 27, wherein ~~at least one of claims 27 to 38, characterized in that~~ the first lower and/or second upper lacquer layer is applied by the offset printing process or by the indirect letterpress printing process.

44. (Currently Amended) The [[A]] method according to claim 27, wherein ~~at least one of claims 27 to 43, characterized in that~~ the protective layer is applied to the substrate all over.

45. (Currently Amended) The [[A]] method according to claim 27, wherein ~~at least one of claims 27 to 44, characterized in that~~ the flat substrate is provided with the dirt-repellent protective layer on its two main faces.

46. (Currently Amended) The [[A]] method according to claim 27, wherein ~~at least one of claims 27 to 45, characterized in that~~ the flat substrate supplied in step a) is a paper-

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of-value sheet comprising a plurality of single copies for which the steps b), b₁) and b₂) are performed in the same run in each case.

47. (Currently Amended) The ~~[[A]]~~ method according to claim 27, wherein ~~at least one of claims 27 to 46, characterized in that the~~ first lower and second upper lacquer layers are applied to the substrate in-line in a sheet-fed lacquering machine.